

# RELIABILITY REPORT



## RELIABILITY DATA

LT1431

8/21/2006

**• OPERATING LIFE TEST**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(1)</sup> AT +125°C	NUMBER OF FAILURES <sup>(2)</sup>
PLASTIC DIP TO-92	245	9109	0021	308.35	0
	698	9013	9639	2,436.35	0
	943			2,744.70	0

**• HIGHLY ACCELERATED STRESS TEST AT +131°C/85%RH**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS <sup>(4)</sup> AT +85°C	NUMBER OF FAILURES
TO-92	280	9246	9527	404.32	0
	280			404.32	0

**• PRESSURE COOKER TEST AT 15 PSIG, +121°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE HOURS	NUMBER OF FAILURES
PLASTIC DIP SOIC/SOT/MSOP TO-92	2,045	9109	9924	69.67	0
	12,704	9109	0614	544.11	0
	1,694	9137	0317	198.59	0
	16,443			812.37	0

**• TEMP CYCLE FROM -65°C to +150°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
PLASTIC DIP SOIC/SOT/MSOP TO-92	193	9109	9501	19.30	0
	2,463	9350	0614	749.00	0
	421	9241	0317	166.84	0
	3,077			935.14	0

**• THERMAL SHOCK FROM -65°C to +150°C**

PACKAGE TYPE	SAMPLE SIZE	OLDEST DATE CODE	NEWEST DATE CODE	K DEVICE CYCLES	NUMBER OF FAILURES
SOIC/SOT/MSOP TO-92	1,558	9427	0614	379.00	0
	558	9544	0317	212.88	0
	2,116			591.88	0

(1) Assumes Activation Energy = 1.0 Electron Volts

(2) Failure Rate Equivalent to +55°C, 60% Confidence Level = 0.67 FITS

(3) Mean Time Between Failures in Years = 170,264

(4) Assumes 20X Acceleration from 85°C to +131°C

Note: 1 FIT = 1 Failure in One Billion Hours.